

MAY 08 2014

Special 510(k) Summary

Introduction According to the requirements of 21 CFR 807.92, the following information provides sufficient detail to understand the basis for a determination of substantial equivalence.

Submitter Name, Address, Contact Roche Diagnostics
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Date Prepared: April 28, 2014

Device Name Proprietary name: Elecsys CK-MB STAT Immunoassay

Common name: CK-MB STAT Assay

Classification name: Colorimetric method; Cpk or Isoenzymes

Product Code: JHY

Predicate Device: CK-MB STAT Immunoassay, Roche Diagnostics (K132571)

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Special 510(k) Summary, *continued*

Establishment Registration For the CK-MB STAT Assay, the establishment registration number for Roche Diagnostics GmbH in Mannheim, Germany, is 9610126 and for Penzberg, Germany, is 9610529. The establishment registration number for Roche Diagnostics United States is 1823260

Classification • The FDA has classified the CK-MB STAT as a Class II device.

Panel	Product Code	Classification Name	Regulation Citation
Clinical Chemistry	JHY	Colorimetric Method, Cpk Or Isoenzymes	21 CFR 862.1215

Performance Standards To date, no performance standards that affect this device have been finalized under Section 514 of the Act.

Proposed Labeling Proposed draft labeling sufficient to describe the device, the intended use, and the directions for use on the **cobas e 601** immunoassay analyzer is attached. We believe the draft version of the device labeling presented in Section V contains all of the technical information required per 21 CFR 809.10 for the CK-MB STAT (one-step incubation) Assays.

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Special 510(k) Summary, *continued*

Analyzer Platform	Precision of the CK-MB STAT (one-step incubation) assay was evaluated on one cobas e 601 Immunoassay Analyzers according to CLSI EP5-A2 guidelines. A method comparison between the Elecsys CK-MB STAT (two-step incubation) and CK-MB STAT (one-step incubation) was performed and summarized in Section III, 510(k) summary, Method Comparison.
Device Description	<p>The CK-MB STAT (one-step incubation) Assay is a sandwich immunoassay with streptavidin microparticles and electrochemiluminescence detection.</p> <p>Results are determined using a calibration curve that is generated specifically on each instrument by a 2 point calibration and a master curve (5-point-calibration) provided with the reagent bar code.</p> <p>The CK-MB STAT (one-step incubation) application is identical to the CK-MB STAT (two-step incubation) assay, the only difference being for the CK-MB STAT (one-step incubation) application, the sample, reagent 1, reagent 2 and microparticles are added at one time.</p> <p>Note: Calibrators and controls are packaged and sold separately.</p>
Intended Use	<p>Immunoassay for the <i>in vitro</i> quantitative determination of the MB isoenzyme of creatine kinase in human serum and plasma</p> <p>The electrochemiluminescence immunoassay "ECLIA" is intended for use on the indicated and cobas e immunoassay analyzers.</p>

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Special 510(k) Summary, *continued*

Indications for use	<p>Immunoassay for the <i>in vitro</i> quantitative determination of the MB isoenzyme of creatine kinase in human serum and plasma. Measurements of the MB isoenzyme of creatinine kinase are used as an aid in the diagnosis of myocardial infarction.</p> <p>The electrochemiluminescence immunoassay "ECLIA" is intended for use on the indicated Elecsys and cobas e immunoassay analyzers.</p>
Special conditions for use	<p>For prescription use only</p>
Special instrument requirements	<p>The electrochemiluminescence immunoassay "ECLIA" is intended for use on the indicated Elecsys and cobas e immunoassay analyzers.</p>
Substantial Equivalence	<p>The CK-MB STAT Immunoassay is substantially equivalent to other devices legally marketed in the United States.</p> <p>CK-MB STAT (one-step incubation) Immunoassays, is equivalent to CK-MB STAT (two-step) Immunoassay, Roche Diagnostics (K132571).</p>
Substantial Equivalence Comparison	<p>The following table compares the CK-MB STAT Immunoassay (one-step incubation) with the predicate device.</p>

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Special 510(k) Summary, *continued*

Comparison of Assays, Similarities and Differences

Table 1 CK-MB STAT (two-step incubation) vs. CK-MB STAT (one-step incubation)

Assay Comparison		
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)	CK-MB STAT (one-step incubation) Assay (modified)
General Assay Features		
Intended Use/ Indications for Use	Immunoassay for the <i>in vitro</i> quantitative determination of MB isoenzyme of creatine kinase in human serum and plasma. The electrochemiluminescence immunoassay "ECLIA" is intended for use on Elecsys and cobas e immunoassay analyzers.	Same
Assay Protocol	Two step Sandwich assay using biotinylated and ruthenium labeled antibodies and streptavidin microparticles	Sandwich assay using biotinylated and ruthenium labeled antibodies and streptavidin microparticles
Detection Protocol	Electrochemiluminescent Immunoassay	Same
Applications	STAT (9 minute) application	Same

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Special 510(k) Summary, *continued*

Comparison of Assays—Similarities and Differences, *continued*

Table 1 *continued*

Assay Comparison						
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)				CK-MB STAT (one-step incubation) Assay (modified)	
General Assay Features						
Instrument Platform	cobas e 411				Roche cobas e 601	
Sample Volume	15 µL				Same	
Sample Type	Human serum and plasma treated with K ₂ -EDTA, K ₃ -EDTA, and lithium heparin and sodium heparin plasma.				Same	
		Specifi- cation	Na Hepar in Plasm a	Li Hepar in Plasm a	K ₂ - EDT A Plas ma	K ₃ - EDTA Plasm a
Sample size normally filled tubes	at least 30	35	34	35	35	
Slope (BaPa)	0.9 - 1.1	0.994	0.996	1.020	0.988	
Intercept (BaPa)	≤ +/- 0.15	0.0010	0.0045	0.0082	0.0115	
Correlation r	> 0.95	0.9997	0.9996	0.9999	0.9998	
Relative deviation for single sample pairs	+/- 20%	max deviation 14.6 %	max deviation 12.0 %	max deviation 10.5 %	max deviation 8.7 %	
Reagents	Sandwich principle. Total duration of assay: 9 minutes. • 1st incubation: 15 µL of sample, a biotinylated monoclonal anti-CK-MB antibody, and a monoclonal CK-MB-specific antibody labeled with a ruthenium complex react to form a sandwich complex. • 2nd incubation: After addition of streptavidin-coated microparticles, the complex becomes bound to the solid phase via interaction of biotin and streptavidin.				Sandwich principle. Total duration of assay: 9 minutes • Antigen in the sample (15 µL), a biotinylated monoclonal anti-CK-MB antibody, a monoclonal CK-MB-specific antibody labeled with a ruthenium complex and streptavidin-coated microparticles react to form a sandwich complex, which is bound to a solid phase	

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Special 510(k) Summary, *continued*

Comparison of Assays—Similarities and Differences, *continued*

Table 1 *continued*

Assay Comparison		
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)	CK-MB STAT (one-step incubation) Assay (modified)
General Assay Features		
Calibrator	CK-MB STAT CalSet	Same
Calibration Interval	<p>Calibration must be performed once per reagent lot using fresh reagent (i.e. not more than 24 hours since the reagent kit was registered on the analyzer). Renewed calibration is recommended as follows:</p> <ul style="list-style-type: none"> • After 12 weeks when using the same reagent lot. • After 7 days (when using the same reagent kit on the analyzer). • As required: e.g. quality control findings outside the specified limits 	Same
Controls	Elecsys PreciControl Cardiac II	Same

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Special 510(k) Summary, *continued*

Comparison of Assays—Similarities and Differences, *continued*

Table 1 *continued*

Assay Comparison		
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)	CK-MB STAT (one-step incubation) Assay (modified)
General assay features		
Traceability / Standardization	The CK-MB STAT assay is traceable to the Abbott IMx CK-MB assay and linearized using human recombinant CK-MB from Seradyn	Same
Reagent Stability	Unopened: 2-8°C - Up to the stated expiration date Opened 2-8°C - 12 weeks On Analyzers – 8 weeks	Same
Linearity determined with serum samples.	Series 1: $y=0.9421-0.0579$ Series 2: $y=0.9348-0.116$ Series 3: $y=0.942-0.0964$	Series 1: $y=0.9571-0.1267$ (range: 0.27 to 563 ng/mL) Series 2: $y=0.9499-0.0957$ (range: 0.13 to 548 ng/mL) Series 3: $y=0.9576-0.1188$ (range: 0.16 to 328 ng/mL) Note: linearity was established at $\pm 11.3\%$ within the stated measuring range.

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Special 510(k) Summary, *continued*

Comparison of Assays—Similarities and Differences, *continued*

Table 1 *continued*

Assay Comparison		
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)	CK-MB STAT (one-step incubation) Assay (modified)
Labeled Performance Characteristics		
Measuring Range	1-300 ng/mL	Same
Precision	<p><i>cobas e 411:</i> Within-run (will be labeled Repeatability) 1.2% CV @ 5.46 ng/mL 1.3% CV @ 29.5 ng/mL 1.3% CV @ 93.5 ng/mL 1.5% CV @ 301 ng/mL 1.3% CV^{PC1} @ 4.44 ng/mL 1.4% CV^{PC2} @ 57.9 ng/mL</p> <p>Total (will be labeled Intermediate) 2.5% CV @ 5.46 ng/mL 4.2% CV @ 29.5 ng/mL 4.1% CV @ 93.5 ng/mL 3.3% CV @ 301 ng/mL 2.6% CV^{PC1} @ 4.44 ng/mL 3.0% CV^{PC2} @ 57.9 ng/mL</p>	<p><i>cobas e 601:</i> Within-run (will be labeled Repeatability) 1.1% CV @ 5.34 ng/mL 1.1% CV @ 27.3 ng/mL 1.1% CV @ 89.2 ng/mL 0.8% CV @ 283 ng/mL 1.2% CV^{PC1} @ 4.27 ng/mL 0.9% CV^{PC2} @ 54.3 ng/mL</p> <p>Total (will be labeled Intermediate) 1.4% CV @ 5.34 ng/mL 3.2% CV @ 27.3 ng/mL 2.5% CV @ 89.2 ng/mL 2.2% CV @ 283 ng/mL 1.4% CV^{PC1} @ 4.27 ng/mL 1.3% CV^{PC2} @ 54.3 ng/mL</p>
Analytical Sensitivity	Limit of Blank (LoB): = 0.1 ng/ml Limit of Detection (LoD): = 0.3 ng/ml Limit of Quantitation (LoQ): = 1 ng/ml Established according to CLSI EP17- A	Same

PC1=PreciControl Cardiac 1

PC2=PreciControl Cardiac 2

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Special 510(k) Summary, *continued*

Comparison of Assays—Similarities and Differences, *continued*

Table 1 *continued*

Assay Comparison			
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)		CK-MB STAT (one-step incubation) Assay (modified)
Labeled Performance Characteristics			
Analytical Specificity	Analyte	Reactivity	Same
	CK-MM	None	
	CK-BB	0.10%	
Hook Effect	There is no high-dose hook effect at CK-MB concentrations up to 5000 ng/mL		Same
Limitations	Each interferent was evaluated at 11 numerical values. All samples were tested in duplicate. The results reported represent recovery of ± 10 % compared to the unspiked reference sample.		Same
	The results of the interferences are presented below:		
	Interferent tested	No interference up to	
	Intralipid® (Lipemia)	2000 mg/dL	
	Biotin	50 ng/mL	
	Bilirubin	40 mg/dL	
	Hemoglobin	1000 mg/dL	
	Rheumatoid Factor	1700 IU/mL	
	Human Serum albumin	14 g/dL	
	Human IgG	7 g/dL	
	Human IgM	1 g/dL	
	Human IgA	1.6 g/dL	

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Special 510(k) Summary, *continued*

Assay Comparison																																								
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)	CK-MB STAT (one-step incubation) Assay (modified)																																						
Labeled Performance Characteristics																																								
Limitations, continued	In vitro tests were performed on 18 commonly used pharmaceuticals. No interference with the assay was found. Criterion: Recovery within ± 10% compared to the unspiked reference sample.	Same																																						
	These included samples with the following:																																							
	<table><tr><th>Drug</th><th>Concentration</th></tr><tr><td>Acetylcysteine</td><td>150 mg/L</td></tr><tr><td>Ampicillin-Na</td><td>1000 mg/ L</td></tr><tr><td>Ascorbic acid</td><td>300 mg/ L</td></tr><tr><td>Ca- Dobesilate</td><td>200 mg/L</td></tr><tr><td>Cyclosporine</td><td>5 mg/L</td></tr><tr><td>Cefoxitin</td><td>2500 mg/L</td></tr><tr><td>Heparin</td><td>5000 U</td></tr><tr><td>Intralipid</td><td>10000 mg/L</td></tr><tr><td>Levodopa</td><td>20 mg/L</td></tr><tr><td>Methyldopa + 1.5 H₂O</td><td>20 mg/L</td></tr><tr><td>Metronidazole</td><td>200 mg/L</td></tr><tr><td>Phenylbutazone</td><td>400 mg/L</td></tr><tr><td>Doxycycline</td><td>50 mg/L</td></tr><tr><td>Acetylsalicylic Acid</td><td>1000 mg/L</td></tr><tr><td>Rifampicin</td><td>60 mg/L</td></tr><tr><td>Acetaminophen</td><td>200 mg/L</td></tr><tr><td>Ibuprofen</td><td>500 mg/L</td></tr><tr><td>Theophylline</td><td>100 mg/L</td></tr></table>		Drug	Concentration	Acetylcysteine	150 mg/L	Ampicillin-Na	1000 mg/ L	Ascorbic acid	300 mg/ L	Ca- Dobesilate	200 mg/L	Cyclosporine	5 mg/L	Cefoxitin	2500 mg/L	Heparin	5000 U	Intralipid	10000 mg/L	Levodopa	20 mg/L	Methyldopa + 1.5 H ₂ O	20 mg/L	Metronidazole	200 mg/L	Phenylbutazone	400 mg/L	Doxycycline	50 mg/L	Acetylsalicylic Acid	1000 mg/L	Rifampicin	60 mg/L	Acetaminophen	200 mg/L	Ibuprofen	500 mg/L	Theophylline	100 mg/L
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	Intralipid		10000 mg/L																																					
	Levodopa		20 mg/L																																					
	Methyldopa + 1.5 H ₂ O		20 mg/L																																					
	Metronidazole		200 mg/L																																					
	Phenylbutazone		400 mg/L																																					
	Doxycycline		50 mg/L																																					
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Special 510(k) Summary, *continued*

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Labeled Performance Characteristics																																																																						
Limitations, continued	<ul style="list-style-type: none">Testing was performed on 33 special drugs with concentrations shown in the table below. No interference with the assay was found. Criterion: Recovery within ± 10% compared to the unspiked reference sample. <table><tr><th>Special Drug</th><th>Concentration</th></tr><tr><td>Carvedilol</td><td>50 mg/L</td></tr><tr><td>Propanolol</td><td>160 mg/L</td></tr><tr><td>Marcumar</td><td>9 mg/L</td></tr><tr><td>Reteplase</td><td>20 U/L</td></tr><tr><td>Suprarenin (Adrenalin)</td><td>3 mg/L</td></tr><tr><td>Methylprednislon</td><td>40 mg/L</td></tr><tr><td>Verapamil</td><td>480 mg/L</td></tr><tr><td>Lidocain</td><td>500 mg/L</td></tr><tr><td>Enalapril</td><td>40 mg/L</td></tr><tr><td>Captopril</td><td>150 mg/L</td></tr><tr><td>Lisinopril</td><td>40 mg/L</td></tr><tr><td>Aldactone (Spironolacton)</td><td>400 mg/L</td></tr><tr><td>Torasemid</td><td>5 mg/L</td></tr><tr><td>Insulin</td><td>150 I.U.</td></tr><tr><td>Tolbutamid</td><td>10.5 mg/L</td></tr><tr><td>Gentamycin</td><td>420 mg/L</td></tr><tr><td>Lovostatin</td><td>80 mg/L</td></tr><tr><td>Pravastatin</td><td>8 mg/L</td></tr><tr><td>Simvastin</td><td>80 mg/L</td></tr><tr><td>Bisprolol</td><td>20 mg/L</td></tr><tr><td>Nitrolingual (Glyceroltrinitrat)</td><td>1.6 mg/L</td></tr><tr><td>Heparin</td><td>7500 I.U.</td></tr><tr><td>Metropolol</td><td>200 mg/L</td></tr><tr><td>Molsidomin</td><td>16 mg/L</td></tr><tr><td>Nicardipin</td><td>160 mg/L</td></tr><tr><td>Nifedipin</td><td>60 mg/L</td></tr><tr><td>Propafenon</td><td>900 mg/L</td></tr><tr><td>Solatol</td><td>480 mg/L</td></tr><tr><td>Streptokkinase</td><td>10 000 000 I.U.</td></tr><tr><td>Urokinase</td><td>4200000 mg/L</td></tr><tr><td>Digoregen (Digoxin)</td><td>0.5 mg/L</td></tr><tr><td>Digimerck minor (Digitoxin)</td><td>0.21 mg/L</td></tr><tr><td>Clopidrogel</td><td>300 mg/L</td></tr></table>	Special Drug	Concentration	Carvedilol	50 mg/L	Propanolol	160 mg/L	Marcumar	9 mg/L	Reteplase	20 U/L	Suprarenin (Adrenalin)	3 mg/L	Methylprednislon	40 mg/L	Verapamil	480 mg/L	Lidocain	500 mg/L	Enalapril	40 mg/L	Captopril	150 mg/L	Lisinopril	40 mg/L	Aldactone (Spironolacton)	400 mg/L	Torasemid	5 mg/L	Insulin	150 I.U.	Tolbutamid	10.5 mg/L	Gentamycin	420 mg/L	Lovostatin	80 mg/L	Pravastatin	8 mg/L	Simvastin	80 mg/L	Bisprolol	20 mg/L	Nitrolingual (Glyceroltrinitrat)	1.6 mg/L	Heparin	7500 I.U.	Metropolol	200 mg/L	Molsidomin	16 mg/L	Nicardipin	160 mg/L	Nifedipin	60 mg/L	Propafenon	900 mg/L	Solatol	480 mg/L	Streptokkinase	10 000 000 I.U.	Urokinase	4200000 mg/L	Digoregen (Digoxin)	0.5 mg/L	Digimerck minor (Digitoxin)	0.21 mg/L	Clopidrogel	300 mg/L	Same
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Digimerck minor (Digitoxin)	0.21 mg/L																																																																					
Clopidrogel	300 mg/L																																																																					

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Special 510(k) Summary, *continued*

Assay Comparison		
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)	CK-MB STAT (one-step incubation) Assay (modified)
Labeled Performance Characteristics		
Limitations, continued	<ul style="list-style-type: none"> In rare cases, interference due to extremely high titers of antibodies to analyte-specific antibodies, streptavidin or ruthenium can occur. These effects are minimized by suitable test design. <p>For diagnostic purposes, the results should always be assessed in conjunction with the patient's medical history, clinical examination and other findings</p> <p>These limitations were established by testing performed with one human serum sample containing low levels of CK-MB and one human serum sample containing high levels of CK-MB.</p>	Same

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Special 510(k) Summary, *continued*

Comparison of Assays—Similarities and Differences, *continued*

Immunoassay Comparison					
Feature	Predicate Device: Elecsys CK-MB STAT (two-step incubation) Assay (K132571)			CK-MB STAT (one-step incubation) Assay (modified)	
Labeled Performance Characteristics					
Clinical Study/ reference range		Gender	(N)	99 th percentile (ng/mL)	Same
	All Subjects	Female	523	5.34	
		Male	568	10.36	
	Subjects with no Self-reported risk factors	Female	120	4.30	
		Male	102	7.70	
	Subjects represented “apparently heart healthy” population with exclusion of subjects with known poor cardiac health or known peripheral vascular disease only.				
Additional Performance Characteristics					
Method Comparison Elecsys CK-MB STAT on cobas e 411(two-step incubation) vs. Elecsys CK-MB STAT on cobas e 601 (one-step incubation)					
	n = 115			Passing/Bablok	
	Min = 1.47 ng/ml				
	Max = 269 ng/ml				
	Slope			0.976	
	Intercept			0.053	
	Tau			0.991	

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Special 510(k) Summary, *continued*

**Standard/
Guidance
Document
Reference**

In addition to FDA guidance regarding 510(k) submissions, the following standards were used for the performance studies.

- Evaluation of Precision Performance of Quantitative Measurement Methods; Approved Guideline – Second Edition. CLSI document EP5-A2, Volume 24, No. 25, August 2004.
- Protocols for Determination of Limits of Detection and Limits of Quantitation; Approved Guideline. CLSI document EP 17-A, Volume 24, No. 34, October 2004.
- Evaluation of the Linearity of Quantitative Measurement Procedures: A Statistical Approach; Approved Guideline. CLSI document EP6-A, Volume 23, No. 16, April 2003.

Data for CK-MB STAT (one-step incubation) is on file at Roche Diagnostics.

Conclusion

The submitted information in this premarket notification supports a substantial equivalence decision. The differences between predicate and candidate do not impact the indications for use or technological characteristics.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Center – WO66-G609
Silver Spring, MD 20993-0002

May 8, 2014

ROCHE DIAGNOSTICS
KELLI TURNER
REGULATORY AFFAIRS PRINCIPLE
9115 HAGUE ROAD
INDIANAPOLIS IN 46250

Re: K140404

Trade/Device Name: Elecsys CK-MB STAT Immunoassay
Regulation Number: 21 CFR 862.1215
Regulation Name: Creatine phosphokinase/creatin kinase or isoenzymes test system
Regulatory Class: II
Product Code: JHY
Dated: April 07, 2014
Received: April 08, 2014

Dear Ms. Turner:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Parts 801 and 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulations (21 CFR Parts 801 and 809), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638 2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Courtney H. Lias -S

Courtney H. Lias, Ph.D.

Director

Division of Chemistry and Toxicology Devices

Office of In Vitro Diagnostics

and Radiological Health

Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known)

k140404

Device Name

Elecsys CK-MB STAT Immunoassay

Indications for Use (Describe)

Immunoassay for the in vitro quantitative determination of the MB isoenzyme of creatine kinase in human serum and plasma. Measurements of the MB isoenzyme of creatine kinase are used as an aid in the diagnosis of myocardial infarction.

The electrochemiluminescence immunoassay "ECLIA" is intended for use on Elecsys and cobas e immunoassay analyzers.

Type of Use (Select one or both, as applicable)

☒ Prescription Use (Part 21 CFR 801 Subpart D)

☐ Over-The-Counter Use (21 CFR 801 Subpart C)

PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.

FOR FDA USE ONLY

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

Ruth A. Chesler -S